

## **H-II Transfer Vehicle (HTV) and the Operations Concept for Extravehicular Activity (EVA) Hardware**

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With the retirement of the Space Shuttle fleet imminent in 2011, a new concept of operations will become reality to meet the transportation challenges of the International Space Station (ISS). The planning associated with the retirement of the Space Shuttle has been underway since the announcement in 2004. Since then, several companies and government entities have had to look for innovative low-cost commercial orbital transportation systems to continue to achieve the objectives of ISS delivery requirements. Several options have been assessed and appear ready to meet the large and demanding delivery requirements of the ISS. Options that have been identified that can facilitate the challenge include the Russian Federal Space Agency's Soyuz and Progress spacecraft, European Space Agency's Automated Transfer Vehicle (ATV), the Japan Aerospace Exploration Agency's (JAXA's) H-II Transfer Vehicle (HTV) and the Boeing Delta IV Heavy (DIV-H). The newest of these options is the JAXA's HTV. This paper focuses on the HTV, mission architecture and operations concept for Extra-Vehicular Activities (EVA) hardware, the associated launch system, and details of the launch operations approach.

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